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# **SITE COMPREHENSIVE LISTING (CERCLIS) (LIST-09), VERSION 5.00**

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**THIS IS THE \*\* PRODUCTION VERSION \*\* OF THE REPORT**

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## **USER SELECTION OPTIONS**

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REGION: 03  
REPORT TYPE: CERCLIS  
PROGRAM AREA: Integrated  
DATA DISPLAYED: Site and Action Data  
SELECT CRITERIA: Zip Code = 18951  
SORT BY: Region, EPA ID  
OUTPUT DESTINATION: SCREEN

RUN DATE: 01/29/2014 09:58:28  
CERCLIS DATABASE DATE: 01/29/2014  
CERCLIS DATABASE TIME: 09:58:28  
VERSION: 5.00

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**U.S. EPA SUPERFUND PROGRAM**  
**CERCLIS**  
**Site Comprehensive Listing (CERCLIS)**  
**(LIST-09 CERCLIS)**  
**REGION: 03**

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EPA ID SITE ID	SITE NAME STREET 1 STREET 2 CITY COUNTY NAME	STATE COUNTY (FIPS) CODE	ZIP CODE	LATITUDE LONGITUDE SOURCE	SMSA HYDRO UNIT	OU	ACTION CODE, NAME	ACTUAL START SEQ DATE	ACTUAL COMPLETE DATE	CURRENT ACTION LEAD
PAD980706824 0301517	WATSON JOHNSON LANDFILL E PUMPING STA RD			+40.460130 -075.331860 EPA HQ	6160 02040105		CONGRESSIONAL DISTRICT: 15 OWNERSHIP: Other NPL STATUS: F FEDERAL FACILITY: N NON-NPL STATUS: N/A NPL UPDATE NUMBER: No data available			
	RICHLAND TOWNSHIP BUCKS	PA 42017	18951							

Site Aliases: AMERICAN OLEAN TILE CO QUAKERSTOWN PLT,,,PA,;WATSON JOHNSON LANDFILL,,,,;WATSON JOHNSON LANDFILL,E. PUMPING STATION ROAD,RICHLAND TOWNSHIP,PA,18951;

Site Description: The Watson Johnson Landfill Superfund Site is located in Richland Township, Bucks County, Pennsylvania. The Site is located approximately 0.75 miles north of Quakertown and lies northeast of Tohickon Creek. The Site is approximately 32 acres in area, and contains a 20.4 acre inactive and unlined landfill. The landfill was in operation from the late 1950's until the early 1970's, when it was shut down by court order. The landfill was never permitted to accept waste. Both household and industrial wastes were disposed of at the landfill. The Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS") identification number for this Site is PAD980706824.

The U.S. Environmental Protection Agency ("EPA") is the lead agency for Site activities and the Pennsylvania Department of Environmental Protection ("PADEP") is the support agency.

This action addresses the landfill area and the contamination in the groundwater throughout the Site. This action is a comprehensive remedy for the Site, and EPA does not anticipate the need to select any additional remedial actions (Records of Decision).

The EPA Region III Site Assessment Technical Assistance ("SATA") team conducted field investigations at the Site from 1998 through 1999. SATA collected samples from on-site soils, adjacent wetlands, the Tohickon Creek, and from on-site groundwater monitoring wells and nearby residential and municipal wells.

Hazardous substances detected in the soils of the landfill during the Site Investigation ("SI") included volatile organic compounds ("VOCs"), semi-volatile organic compounds ("SVOCs"), polychlorinated biphenyls ("PCBs"), and metals. Site monitoring well results also showed elevated levels of tetrachloroethene ("PCE") and trichloroethene ("TCE") in groundwater. These compounds were also found in the samples collected from the Quakertown Borough water supply wells QT-10 and QT-17. The municipal wells are approximately 3/4 of a mile south of the Site. The SI concluded that the PCE and TCE contamination of the municipal wells was attributable to the Site. This conclusion was determined from the following: (1) general groundwater flow off-site is south-southwest (toward the municipal wells); (2) PCE and TCE were found in Site monitoring wells, and PCE was found in a drum buried on Site; (3) PCE and TCE were found in a municipal well down gradient from the Site; and (4) neither PCE nor TCE were found in background wells. Production water from the municipal well is currently being treated by an air stripper to remove contamination prior to distribution. During the SI, low levels of PCE were also detected in several off-site residential wells. The PCE is believed to be Site-related. Elevated levels of arsenic were also detected in several residential wells. The SI concluded that there were two potential possibilities for the elevated levels of arsenic. The first is based on the fact that pyrite has been documented to be present in rocks underlying the area. Pyrite minerals, specifically arsenopyrite, contain arsenic, and this is a common source of natural levels of arsenic in the groundwater. The second possibility is that the iron sulfate in the pyrite would form a weak acid and dissolve the pyrite found naturally in the soil, thereby increasing the natural levels of arsenic found in the groundwater. Further study was performed during the Remedial Investigation ("RI") which confirmed that the actual cause of the elevated levels of arsenic in groundwater was naturally occurring pyrite based on the statistical background elevation of arsenic in monitoring wells, the random distribution of elevated arsenic in groundwater and the presence of pyritic crystals observed to be present in monitoring well MW21D.

During the SI, elevated levels of metals (mercury, chromium, aluminum, iron and manganese) and PCBs were detected in sediment samples collected from wetlands adjacent to the landfill.

This Site was proposed for the National Priorities List on June 14, 2001 and formally added to the list on September 13, 2001.

A contaminant plume emanates from the landfill and has migrated in the general direction of groundwater flow to the south, toward a Quakertown neighborhood, and also toward the southwest. The VOCs were detected within the Quakertown neighborhood residential wells and a Quakertown Borough water supply well located downgradient from the Site. The Quakertown neighborhood was placed on public water supply in 2005/2006 during an EPA Removal Action, thereby eliminating exposure to the contaminated groundwater by residential well users.

The Watson Johnson Landfill property encompasses approximately 20.2 acres. The land use within the Site area is approximately 50% residential, 10% commercial, 5% agricultural, and 35% wooded and/or wetland. The landfill is currently not in use and has unrestricted access (no fence). The landfill is bordered by agricultural properties to the north and south. Woodlands and wetlands are located southwest of the landfill, extending from the landfill to Tohickon Creek. A composting facility lies to the west and a residential housing subdivision. Heather Valley/Richland Farms borders the landfill to the east. Future land use is anticipated to be consistent with the current land use. Restrictions for development of the landfill property will be included as an institutional control and a fence will be placed around the landfill to protect the engineered remedy.

The aquifer at the Site is designated by Pennsylvania as a Class IIA aquifer, a drinking water aquifer. The residents in the Watson Johnson Landfill Site area are either on public or private water supply. Three public water suppliers serve the general area: 1) Richlandtown Borough Water Department; 2) Richland Township Water Authority ("RTWA"); and: 3) Quakertown Borough Water

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Department ("QBWD").

A Record of Decision addressing Operable Unit 1 was completed in August 2009.

00	DS	DISCVRY	001		11/01/1979	EPA Fund
00	RS	RV ASSESS	001	07/12/1999	03/25/2003	EPA Fund
00	RV	RMVL	001	03/25/2003	02/16/2006	EPA Fund
00	BB	PRP RV	001	11/30/1999	08/09/2000	PRP Rsp Fed
00	PA	PA	001		10/01/1980	State (Fund)
00	SI	SI	001	07/05/1998	04/29/1999	EPA Fund
00	ES	ESI	001	05/15/1999	06/16/2000	EPA Fund
00	HR	HAZRANK	001	07/01/2000	06/04/2001	EPA Fund
00	NP	PROPOSED	001		06/14/2001	EPA Fund
00	NF	NPL FINL	001		09/13/2001	EPA Fund
00	AS	AIR SRVY	001	01/08/2003		EPA Fund
00	CR	CI	001	06/05/2001		EPA Fund
00	AR	ADMM REC	001	09/21/2006		EPA Fund

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PAD980706824	WATSON JOHNSON LANDFILL - CONTINUED						01	CO RI/FS	001	09/25/2001	08/14/2009	EPA Fund
							01	RO ROD	001		08/14/2009	EPA Fund
							01	RD RD	001	11/06/2009	09/30/2011	EPA Fund

TOTAL NUMBER OF SITES IN REPORT: 1